

# ARIZONA CLIMATE CHANGE ADVISORY GROUP MEETING

#4 March 17, 2006





## **TODAY'S AGENDA**

- 1. CALL TO ORDER
- 2. REVIEW OF MEETING AGENDA
- 3. APPROVAL OF THIRD CLIMATE CHANGE ADVISORY GROUP (CCAG) MEETING SUMMARY
- 4. REVIEW OF CCAG PROGRESS AND NEXT STEPS
- 5. REVIEW AND CONSIDERATION FOR POSSIBLE APPROVAL OF POLICY PROPOSALS
- 6. REVIEW OF TWG PROGRESS ON STATE GHG GOALS AND CROSS CUTTING ISSUES
- 7. REVIEW OF FINAL REPORT OUTLINE AND SCHEDULE
- 8. CALL TO THE PUBLIC
- 9. ANNOUNCEMENTS, DISCUSSION OF AGENDA ITEMS AND TIME FOR NEXT MEETING

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#### **REVIEW OF TEN STEP PLAN**

- 1. DEVELOP INITIAL GHG INVENTORIES AND FORECASTS
- 2. IDENTIFY CONCEIVABLE GHG MITIGATION OPTIONS
- 3. IDENTIFY INITIAL PRIORITIES FOR EVALUATION
- 4. EVALUATION OF GHG SAVINGS, COSTS AND OTHER ISSUES FOR INDIVIDUAL OPTIONS
- 5. IDENTIFY BARRIERS, ALTERNATIVE POLICY DESIGN NEEDS FOR INDIVIDUAL OPTIONS
- 6. MODIFY, ADD OR SUBTRACT OPTIONS AS NEEDED
- 7. EVALUATE CUMULATIVE RESULTS OF OPTIONS
- 8. ITERATE TO CONSENSUS, WITH VOTES AS NEEDED
- 9. AGGREGATE OPTIONS INTO IMPLEMENTATION SCENARIOS
- 10. FINALIZE RECOMMENDATIONS AND REPORT LANGUAGE

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#### **DRAFT POLICY DESCRIPTIONS**

- 1. POLICY DESCRIPTION
- 2. BAU POLICIES/PROGRAMS
- 3. Types(s) of GHG Benefit(s)
- 4. Types of Ancillary Benefits and or Costs
- 5. ESTIMATED GHG SAVINGS AND COSTS PER MMTCO2E
- 6. DATA SOURCES, METHODS AND ASSUMPTIONS
- 7. KEY UNCERTAINTIES
- 8. DESCRIPTION OF ANCILLARY BENEFITS AND COSTS, IF NEEDED
- 9. DESCRIPTION OF FEASIBILITY ISSUES, IF NEEDED
- 10. STATUS OF GROUP APPROVAL
- 11. LEVEL OF GROUP SUPPORT
- 12. BARRIERS TO CONSENSUS

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## **DECISION CRITERIA**

- 1. GHG REDUCTION POTENTIAL (CO2E)
- 2. DIRECT COST PER TON GHG REMOVED
- 3. ANCILLARY ISSUES
  - CO-BENEFITS, COSTS, ETC.
- 4. FEASIBILITY ISSUES
  - TECHNICAL, ECONOMIC, MARKET, PROGRAMMATIC, POLITICAL

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## **TWG PRIORITIES**

TWG	# CURRENT PRIORITIES FOR ANALYSIS
ENERGY SUPPLY	12
RCI	12
TRANSPORTATION AND LAND USE	7
AGRICULTURE AND FORESTRY	15
CROSS CUTTING ISSUES	4
TOTAL	50

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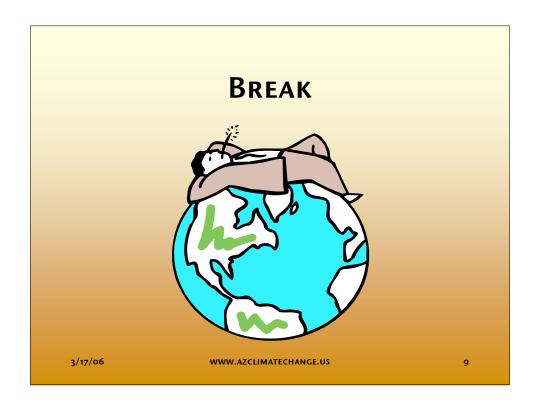
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# **RCI OPTIONS**

- SEE HANDOUT TABLE 5
  - DEMAND-SIDE EFFICIENCY FUNDS, INCENTIVES, AND PROGRAMS
  - STATE LEADERSHIP PROGRAMS
  - APPLIANCE STANDARDS
  - Building Standards/codes for Smart Growth
  - "BEYOND CODE" BUILDING DESIGN INCENTIVES AND PROGRAMS FOR SMART GROWTH
  - DISTRIBUTED GENERATION/COMBINED HEAT AND POWER
  - DISTRIBUTED GENERATION/RENEWABLE ENERGY APPLICATIONS
  - ELECTRICITY PRICING STRATEGIES
  - MITIGATING HIGH GWP GAS EMISSIONS (HFC, PFC)
  - DEMAND-SIDE FUEL SWITCHING
  - INDUSTRIAL SECTOR GHG EMISSIONS TRADING OR COMMITMENTS
  - DEMAND-SIDE SOLID WASTE/WASTEWATER MANAGEMENT

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## **ES OPTIONS**

- SEE HANDOUT TABLE 3
  - RENEWABLE AND LOW-EMITTING ENERGY
    - ENVIRONMENTAL PORTFOLIO STANDARD
    - PUBLIC BENEFIT CHARGE FUNDS
    - DIRECT RENEWABLE ENERGY SUPPORT: INCLUDING TAX CREDITS AND INCENTIVES, R&D, AND SITING/ZONING
  - Emissions Policies
    - GHG CAP AND TRADE
    - GENERATION PERFORMANCE STANDARDS
    - CARBON INTENSITY TARGET
    - VOLUNTARY UTILITY CO2 TARGETS AND/OR TRADING
    - CO<sub>2</sub> Tax
  - GRID AND UTILITY POLICIES
    - REDUCE BARRIERS TO RENEWABLES AND CLEAN DG
    - METERING STRATEGIES
    - PRICING STRATEGIES
    - INTEGRATED RESOURCE PLANNING

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## **TLU OPTIONS**

- SEE HANDOUT TABLE 7
  - PASSENGER VEHICLE GHG EMISSION RATES
    - CALIFORNIA GHG EMISSION STANDARDS (THIS INCLUDES PHASE II OF THESE STANDARDS IF ADOPTED BY CALIFORNIA)
  - LAND USE AND LOCATION EFFICIENCY
    - SMART GROWTH BUNDLE OF OPTIONS
  - INCREASING LOW-GHG TRAVEL OPTIONS
    - MULTIMODAL TRANSIT BUNDLE OF OPTIONS
  - FREIGHT
    - PROMOTE IDLE REDUCTION TECHNOLOGIES
    - ENFORCE ANTI-IDLING
  - FUELS
    - STANDARDS AND ENFORCEMENT FOR BIODIESEL AND ETHANOL FUELS
    - GASOLINE TAX

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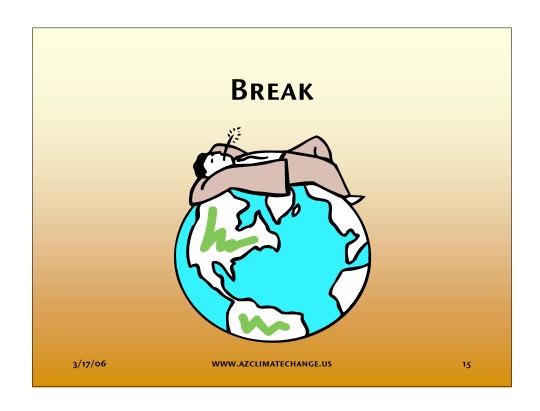
#### FORESTRY OPTIONS

- SEE HANDOUT TABLE 9
  - FORESTLAND PROTECTION FROM DEVELOPED USES
  - Reforestation/Restoration of Forestland
  - FOREST ECOSYSTEM MANAGEMENT RESIDENTIAL LANDS (INCLUDING EXPANDED USE OF BIOMASS ENERGY AND **HARVESTED WOOD PRODUCTS)**
  - FOREST ECOSYSTEM MANAGEMENT OTHER LANDS (INCLUDING EXPANDED USE OF BIOMASS ENERGY AND HARVESTED WOOD PRODUCTS)
  - IMPROVED COMMERCIALIZATION OF BIOMASS **GASIFICATION AND COMBINED CYCLE**

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#### **AGRICULTURE OPTIONS**

- SEE HANDOUT TABLE 9
  - MANURE MANAGEMENT MANURE DIGESTERS
  - MANURE MANAGEMENT LAND APPLICATION
  - BIOMASS FEEDSTOCKS FOR ELECTRICITY OR STEAM/DIRECT **HEAT**
  - ETHANOL PRODUCTION
  - CHANGE FEEDSTOCKS (OPTIMIZE NITROGEN FOR N2O **REDUCTION) CHANGE FEEDSTOCKS**
  - NON FARM FERTILIZER USE
  - GRAZING MANAGEMENT
  - CONVERT LAND TO GRASSLAND OR FOREST
  - AGRICULTURAL LAND PROTECTION FROM DEVELOPED USES
- PROGRAMS TO SUPPORT LOCAL FARMING/BUY LOCAL 3/17/06 WWW.AZCLIMATECHANGE.US



# **CROSS CUTTING OPTIONS**

- SEE HANDOUT TABLE 11
  - STATEWIDE GHG GOAL
  - STATE GHG REPORTING SYSTEM
  - STATE GHG REGISTRY
  - STATEWIDE GHG EDUCATION PROGRAMS

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## **GHG GROWTH & GOALS**

STATE	1990-2020 FORECAST	GHG GOALS	PLANNING RESULT
AZ	147%	?	TBD
CA	34%	2000 BY 2010; 10% BELOW BY 2020; 75% BY 2050	TBD
ст	32%	1990 BY 2010; 10% BELOW BY 2020; 75% BY 2100	100%
MA	?	1990 BY 2010; 10% BELOW BY 2020; 75% BY 2100	?
ME	34%	1990 BY 2010; 10% BELOW BY 2020; 75% BY 2100	100%
NC	122%	?	TBD
NEG	?	1990 BY 2010; 10% BELOW BY 2020; 75% BY 2100	TBD
NJ	?	5% -1990 ву 2005	100%
NM	64%	2000 BY 2012; 10% BELOW BY 2020; 75% BY 2050	TBD
NY	24%	5% BELOW 1990 BY 2010	?
OR	38%	1990 BY 2010; 10% BELOW BY 2020; 75% BY 2100	85%
PS/WA	37%	1990 BY 2010; 10% BELOW BY 2020; 75% BY 2100	100%
RI	35%	1990 BY 2010; 10% BELOW BY 2020; 75% BY 2100	100%

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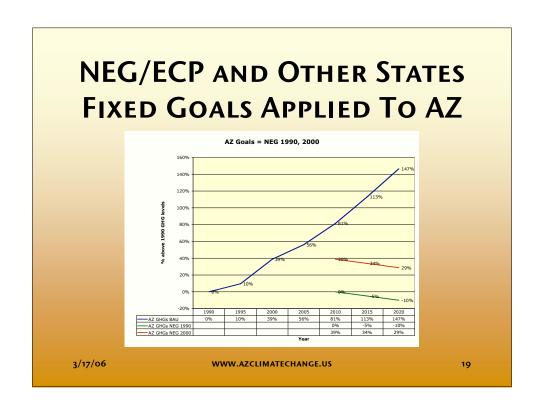
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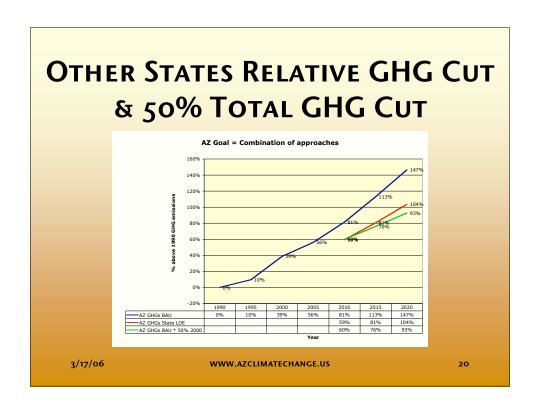
# 100% AVG TOTAL GHG GROWTH CUT 2005-2020

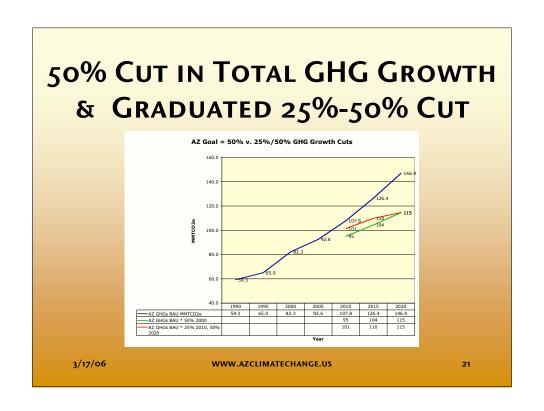


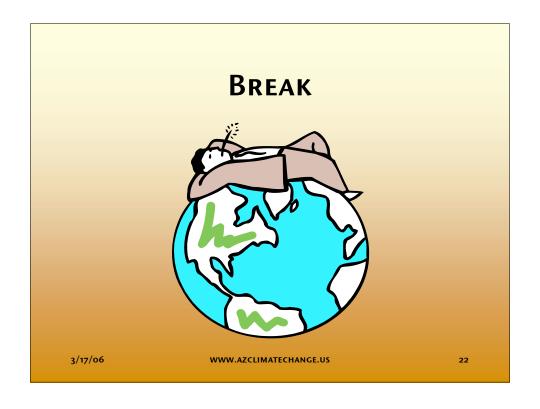
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#### **NEXT STEPS TWGS**

- TWGs WORK ON:
  - QUANTIFY AND OR DRAFT LANGUAGE FOR POLICY OPTIONS
  - DEVELOP ALTERNATIVE APPROACHES AS NEEDED
  - DEVELOP NEW STRAW PROPOSALS AS NEEDED
  - DEVELOP IMPLEMENTATION MECHANISMS
  - CLARIFY OTHER TECHNICAL ELEMENTS OF THE POLICY DESIGN TEMPLATE AS NEEDED

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#### **DRAFT CCAG REPORT**

- EXECUTIVE SUMMARY
- BACKGROUND, PURPOSE AND GOALS
  - DESCRIPTION OF THE PROCESS
  - HISTORY AND STATUS OF STATE ACTIONS
  - STATE EMISSIONS INVENTORY & FORECAST
- POLICY RECOMMENDATIONS & RESULTS
  - AGRICULTURE AND FORESTRY
  - ENERGY SUPPLY
  - RESIDENTIAL, COMMERCIAL, INDUSTRIAL
  - Transportation & Land Use
  - WASTE MANAGEMENT
  - Cross Cutting Issues
- APPENDICES

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# PUBLIC INPUT, ANNOUNCEMENTS

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## **AGENDA NEXT MEETING**

- Policy options
  - DISCUSSION OF ASSESSMENTS AND OR TEXT FOR DRAFT POLICY OPTIONS, MODIFICATION AS NEEDED
- STATE GHG GOALS
  - Discussion and possible approval of TWG PROPOSALS, MODIFICATION AS NEEDED
- FINAL REPORT UPDATE

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## DATE NEXT CCAG MEETING

- SUGGESTED:
  - LATE MAY, 2006
  - PHOENIX

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